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SERIAL NO. 10/694,450
PATENT

REMARKS

Claims 1-5, 7-10, 12-17, and 19-23 were pending in this application.

Claims 8-10, 12-17, 19, 20, 22, and 23 have been allowed.

Claims 1-5, 7, and 21 have been rejected.

Claims 1, 2, 8, and 15 have been amended as shown above.

Claims 1-5, 7-10, 12-17, and 19-23 remain pending in this application.

Reconsideration and full allowance of Claims 1-5, 7-10, 12-17, and 19-23 are respectfully requested.

I. ALLOWABLE CLAIMS

The Applicant thanks the Examiner for the indication that Claims 8-10, 12-17, 19, 20, 22, and 23 are allowable. Claims 8 and 15 have been amended as shown above to avoid a potential ambiguity in the claims. In particular, Claims 8 and 15 previously recited generating "an up signal or a down signal" and generating a charge pump output signal based on "the up and down signals." The amendments to Claims 8 and 15 remove any potential ambiguity involving the phrases "an up signal or a down signal" and "the up and down signals." Therefore, the Applicant respectfully submits that Claims 8-10, 12-17, 19, 20, 22, and 23 remain in condition for allowance.

II. REJECTION UNDER 35 U.S.C. § 112

The Office Action rejects Claims 1-5, 7, and 21 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Office Action asserts that the phrase "the sampling clock signal reduced with respect

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to the reference clock signal" in Claim 1 is vague because it is unclear which parameter of the sampling clock signal is being "reduced." (*Office Action, Page 2, Section 2*). The Applicant has amended Claim 1 as shown above. The Applicant respectfully submits that Claim 1 as amended is definite. Accordingly, the Applicant respectfully requests withdrawal of the § 112 rejection.

III. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1-4 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,920,233 to Denny ("*Denny*"). This rejection is respectfully traversed.

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP § 2131; In re Bond, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)*). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP § 2131; In re Donohue, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985)*).

The Office Action asserts that the signal V_s from the OR gate 410 of *Denny* represents the "sampling clock signal" recited in Claim 1. The Office Action also asserts that the signal V_s is "based on [a] reference clock signal" because the signal V_i of *Denny* is "based on [reference frequency F_i]." (*Office Action, Page 3, Fifth paragraph*).

The Applicant has amended Claim 1 to recite that the "sampling clock signal" is "generated based on a divided reference clock signal." The signal V_s from the OR gate 410 of *Denny* is based on (i) the output of the comparator 522, (ii) the output of the comparator 528, or (iii) the output of the switch control 408 (which includes NOR gate 508, delay device 510, and monostable element

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512). (Figure 4). The input to the switch control 408 represents up and down outputs from the phase detector 106, which compares the reference frequency F_r and the variable frequency F_v . (Figures 3-4).

Denny clearly indicates that the signal V_s from the OR gate 410 depends on (among other things) the output of the phase detector 106, which compares two frequencies including the reference frequency F_r . However, *Denny* lacks any mention that the signal V_s from the OR gate 410 is based on a divided reference frequency F_r . As a result, *Denny* fails to anticipate a "sampling clock signal" that is "generated based on a divided reference clock signal" as recited in Claim 1 (and its dependent claims).

Accordingly, the Applicant respectfully requests withdrawal of the § 102 rejection and full allowance of Claims 1-4.

IV. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claim 7 under 35 U.S.C. § 103(a) as being unpatentable over *Denny*. This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (MPEP

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§ 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (MPEP § 2142).

Claim 7 depends from Claim 1. As noted above in Section III, Claim 1 is patentable over *Denny*. As a result, Claim 7 is patentable due to its dependence from an allowable base claim.

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection and full allowance of Claim 7.

V. CONCLUSION

The Applicant respectfully asserts that all pending claims in this application are in condition

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for allowance and respectfully requests full allowance of the claims.

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SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Commissioner is authorized to charge any fees connected with this communication (including any extension of time fees) or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date:

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